

BEFORE THE
Federal Communications Commission

WASHINGTON, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Amendment of Parts 2, 21 and)
94 of the Commission's Rules)
Concerning Channel Assignments)
in the 27.5 - 29.5 GHz Band)

RM-7722

To: The Commission

STATEMENT OF SUPPORT
OF THE
AMERICAN PETROLEUM INSTITUTE

The American Petroleum Institute ("API"), by its attorneys, pursuant to Sections 1.4 and 1.405 of the Rules and Regulations of the Federal Communications Commission ("Commission" or "FCC"), respectfully submits this Statement regarding the Petition for Rule Making ("Petition") of the Farinon Division of Harris Corporation ("Harris").^{1/}

I.

PRELIMINARY STATEMENT

1. The American Petroleum Institute is a national trade association representing over 200 companies involved in all aspects of the oil and gas industries including exploration, production, refining, marketing, and pipeline

^{1/} FCC Public Notice Report No. 1845 (May 16, 1991).

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transportation of petroleum, petroleum products, and natural gas. Among its many activities, API acts on behalf of its members as spokesperson before federal and state regulatory agencies and legislative bodies. The API Telecommunications Committee is one of the standing committees of the organization's General Committee on Transportation. The Committee evaluates and develops responses to federal and state proposals affecting telecommunications facilities employed in the oil and gas industries.

2. The Telecommunications Committee is API's primary committee concerned with telecommunications regulatory matters. It is supported by licensees that are authorized by the Commission to operate, among other facilities, two-way mobile radio systems in the Private Land Mobile Radio Services and point-to-point microwave systems in the Private Operational-Fixed Microwave Service ("POFS"). These telecommunications facilities are used to support the search for, and production of oil and natural gas. These systems are also utilized pursuant to regulations of the U.S. Department of Transportation ("DOT") to ensure the safe pipeline transmission of natural gas, crude oil and refined petroleum products, and for the processing and refining of these energy sources, as well as for their ultimate delivery to industrial and residential customers. The facilities

licensed to API's members are thus essential to the provision of our nation's energy sources.

3. API's members use operational-fixed microwave frequencies to serve a variety of vital point-to-point telecommunications requirements, including communications between oil and gas exploration and production sites, communications to and within refineries, and to extend circuits to pipeline, pump and compressor stations. Use of operational-fixed microwave frequencies by oil and gas entities has increased dramatically in recent years. The frequency allocation and assignment issues under consideration in this proceeding are therefore of extreme concern to API's member companies. Accordingly, API is pleased to have this opportunity to submit the following statement in support of the requested rule making proceeding.

II.

THE COMMISSION WILL SERVE THE PRESSING NEEDS OF NUMEROUS MICROWAVE USERS BY EARLY ADOPTION OF THE PROPOSED RULE CHANGES

4. The instant proceeding is in response to a request by Harris that the Commission adopt a channelization plan for the 27.50 - 29.50 GHz band (the "28 GHz band") and

make channels in the band available for assignment to Part 94 POFS applicants in addition to the band's current Part 21 common carrier users. Harris states that such action would result in greater and more efficient use of the band since it is presently underused and will provide spectrum for numerous uses, thereby helping ease congestion in the heavily used lower range OFS bands.^{2/}

5. API supports this effort to make available underused spectrum, particularly since the 28 GHz band could be used for a variety of currently unmet industrial communications needs. The petroleum and natural gas industries have a tremendous requirement for microwave point-to-point communications facilities in all aspects of their business. In fact, microwave channels are in many instances the only way to provide communications for certain refining, exploration and pipeline operations. While many of these needs can only be met by use of microwave frequencies in the lower bands which have long distance propagation characteristics, there are some needs which could be served by use of frequencies in the higher bands such as the 28 GHz band. For example, the short-range propagation characteristics of the 28 GHz band make it

^{2/} See Petition, pp. 3-6 and 8-10.

useful to provide needed voice and/or data transmission in many locations across the country. This is particularly true in industrial settings such as oil refineries and other highly complex installations where the need for portability and flexibility in telecommunication equipment is paramount, and where, due to physical constraints, it is often not possible to install cables. Thus wireline communication facilities are many times not an option to meet these specialized communication requirements.

6. Additionally, if these channels are made available in wide bandwidths, they could be used with high capacity networks, such as those employing fiber optics, particularly in the "last mile" of a network or in situations where physical or other obstacles prevent the placement of fiber. Because of bandwidth limitations, currently allocated microwave channels can generally not meet this need. However, the Commission has an opportunity to provide spectrum to meet this need through this proceeding. API submits that the Commission will even more effectively meet this spectrum need and encourage greater use of fiber optic technology by allowing single-site "stacking" of up to three 80 MHz bandwidth channels for use by entities who can demonstrate adequate justification for such assignments. In effect, such an allowance would

provide sufficient bandwidth for data and/or voice delivery rates equivalent to fiber optic service. Obviously, for an entity wishing to employ fiber for its business communications network but unable, for example, to lay the "last mile" of fiber to its corporate offices across a busy freeway, the availability of short-range, high capacity microwave spectrum provides an ideal solution.

Additionally, this equipment should be made available to provide wireless extensions of local area networks ("LANs") for data transmission between buildings. The 28 GHz band provides a spectrum option in which to perform these operations.

7. API supports Harris' request through this proceeding for implementation of a channelization plan for the 28 GHz band. API agrees with Harris that such a channelization plan will stimulate equipment design and, in turn, enhance greater and more efficient use of the band. Accordingly, API suggests that the Commission adopt a channelization plan which will ensure maximum flexibility in equipment design as well as efficient use of the affected spectrum. API supports Harris' assertion that a channelization plan featuring multiple bandwidth options will meet this need. API generally concurs with Harris that establishing rules for the 28 GHz band which mirror those

already adopted for the 17.7 - 19.7 GHz band is desirable. However, the Commission should consider relaxing the modulation efficiency standards for the narrow band channels (10 and 20 MHz) since this would promote development of a greater range of equipment.

8. Accordingly, because the 28 GHz band is capable of providing needed short range point-to-point transmission capabilities for a multiplicity of industrial applications, API fully supports the instant petition and submits that early adoption of its proposals will serve the public interest. API agrees with Harris' assertion that the 28 GHz band is currently underused and that allocation of the band for private point-to-point communications in addition to use by common carriers is feasible and in the public interest since it will maximize efficient use of the spectrum.

III.


CONCLUSION

9. API believes the public interest will be served by early adoption of the proposed rule changes. API urges the Commission to proceed promptly to issue a Notice of Proposed Rule Making so that these frequencies will be made available to meet the needs of private microwave users.

WHEREFORE, THE PREMISES CONSIDERED, the American Petroleum Institute respectfully urges the Federal Communications Commission to act in a manner fully consistent with the views expressed herein.

Respectfully submitted,

THE AMERICAN PETROLEUM INSTITUTE

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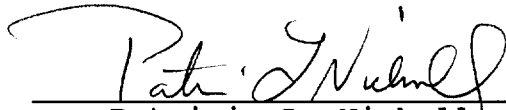
Its Attorneys

Dated: June 17, 1991

CERTIFICATE OF SERVICE

I, Patricia L. Nicholls, a secretary with the law firm of Keller and Heckman, hereby certify that I have caused to be sent, this 17th day of June, 1991, by first class mail, postage prepaid, a copy of the foregoing "Statement of Support of the American Petroleum Institute" to the following:

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